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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,186	03/27/2001	Martin S. Maltz	106806	9094

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OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER
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LEE, TOMMY D

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 11/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/817,186

Applicant(s)

MALTZ, MARTIN S.

Examiner

Thomas D. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 7-11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,345,315 (Shalit).

Regarding claims 1-4 and 7, Shalit discloses a method for processing an image, comprising: inputting characteristics of an image data source (column 9, lines 20-31); inputting characteristics of an image output terminal (column 9, lines 32-34); determining a system tone reproduction curve based on the image data source characteristics and the image output terminal characteristics (column 9, lines 35-39); adjusting the tone reproduction curve (column 10, lines 6-16); inputting image data and adjusting the image data based on the adjusted tone reproduction curve (column 10, lines 12-16; column 11, lines 30-33). The tone reproduction curve is adjusted using gray balance, is adjusted using different darkness of various colors of the image data, and is determined for each of various colors of the image data (column 15, line 60 – column 16, line 1). An angle formed between a tangent to at least one tone reproduction curve at a point, and a line from the point to an end point is less than a threshold value (angle between tangent at any point on desired standard curve S in Fig.

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5 and a line from that point to an end point is inherently zero, since the desired standard curve S is a straight line).

Claims 8-11 and 14 are apparatus claims corresponding to above-rejected method claims 1-4 and 7. The limitations in these claims are disclosed in Shalit, as set forth above.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shalit as applied to claim 4 above, and further in view of U.S. Patent 5,196,942 (Shiau)

Regarding claim 5, Shalit does not appear to disclose a method wherein the tone reproduction curve for each of the various colors is extended smoothly. Shiau discloses a standard method of improved gray scale reproduction, wherein a tone reproduction curve with an extended range of input gray scale produces a corresponding change in output (column 1, lines 21-29). This overcomes the problem of copies with washed out highlights and overdeveloped shadows (column 1, lines 15-21). Therefore, it would have been obvious for one of ordinary skill in the art to modify the teaching of Shalit by providing an extended tone reproduction curve, such as disclosed in Shiau.

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Claim 12 is an apparatus claims corresponding to above-rejected method claim

5. The limitation in this claim is disclosed in the combined teaching of Shalit and Shiau, as set forth above.

5. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shalit in view of Shiau as applied to claims 5 and 12 above, and further in view of U.S. Patent 5,777,656 (Henderson).

Regarding claim 6, Shalit in view of Shiau does not appear to disclose a method wherein a spline function is applied to extend at least one tone reproduction curve. Henderson applies a smoothing spline to a tone reproduction curve (column 12, lines 17-36). Applying the spline function smoothes away noise (column 12, lines 23-25) and produces a better interpolation of image data (column 12, lines 30-33), and thus it would have been obvious for one of ordinary skill in the art to modify the combined teaching of Shalit and Shiau by applying a spline function to the tone reproduction curve, as disclosed in Henderson.

Claim 13 is an apparatus claims corresponding to above-rejected method claim

6. The limitation in this claim is disclosed in the combined teaching of Shalit, Shiau and Henderson, as set forth above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Lee whose telephone number is (703) 305-4870. The examiner can normally be reached on Monday-Friday (7:30-5:00), alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (703) 308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thomas D. Lee  
Primary Examiner  
Art Unit 2624

tdl  
November 10, 2004